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CURRENT STATUS OF ALL CLAIMS

Claims 1 to 45. Cancelled.

- 7.46. (Currently amended) The method of claim [[3]] 54, wherein said G-protein coupled signal is increased intracellular calcium ion concentration.
- 8 47. (Currently amended) The method of claim [[3]] 54, wherein said receptor is contacted with 2 or more different candidate compounds said one or more candidate compounds comprises 100 or more different candidate compounds.
- q 48. (Currently amended) The method of claim [[3]] 54, wherein said candidate compound contacts said ADP-glucose receptor polypeptide in the presence of ADP-glucose.
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 AS. (Currently amended) The method of claim [[9]] 12 57, wherein said receptor is contacted with 2 or more different candidate compounds said one or more candidate compounds comprises 100 or more different candidate compounds.
- 50. (Currently amended) The method of claim [[9]] 57, wherein said candidate compound contacts said ADP-glucose receptor polypeptide in the presence of ADP-glucose.
- 2 54. (Currently amended) The method of claim [[14]] 1 60, wherein said G-protein coupled signal is increased intracellular calcium ion concentration.

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3 5%. (Currently amended) The method of claim [[14]] 60, wherein said receptor is contacted with 2 or more different candidate compounds said one or more candidate compounds comprises 100 or more different candidate compounds.

53. (Currently amended) The method of claim [[19]] 63, wherein said receptor is contacted with 2 or more different candidate compounds said or more candidate compounds comprises 100 or more different candidate compounds.

6 54. (New) A method of identifying an ADP-glucose receptor agonist, comprising:

- (a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound under conditions that permit said receptor to produce a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and
- (b) determining the ability of said candidate compound to increase production of said G-protein coupled signal, wherein a candidate compound that increases production of said signal is thereby identified as an ADP-glucose receptor agonist.
- (New) The method of claim 54, wherein said receptor is contacted with a library of candidate compounds.

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(New) The method of claim 54, wherein said receptor is contacted with 100 or more different compounds separately.

12 57. (New) A method of identifying an ADP-glucose receptor ligand, comprising:

- (a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound under conditions that permit said receptor to selectively bind ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and
- (b) determining the ability of said candidate compound to bind said ADP glucose receptor, wherein a candidate compound that selectively binds said ADP-glucose receptor is thereby identified as an ADP-glucose receptor ligand.
- 15 58. (New) The method of claim 51, wherein said receptor is contacted with a library of candidate compounds.
- [6 59. (New) The method of claim 57, wherein said receptor is contacted with 100 or more different compounds separately.
- (New) A method of identifying an ADP-glucose receptor agonist or antagonist, comprising:

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- (a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound in the presence of ADP-glucose under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2;
- (b) determining the ability of said candidate compound to alter production of said G-protein coupled signal, wherein a candidate compound that alters production of said signal is identified as an ADP-glucose receptor agonist or antagonist.
- 4 61. (New) The method of claim 60, wherein said receptor is contacted with a library of candidate compounds.
- 5 62. (New) The method of claim 60, wherein said receptor is contacted with 100 or more different compounds separately.
- [7] 68. (New) A method of identifying an ADP-glucose receptor ligand, comprising:
- (a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound in the presence of ADP-glucose under conditions that permit said receptor to selectively bind ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

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(b) determining the ability of said candidate compound to bind said ADP-glucose receptor, wherein a candidate compound that selectively binds said ADP-glucose receptor is thereby identified as an ADP-glucose receptor ligand.

(New) The method of claim 63, wherein said receptor is contacted with a library of candidate compounds.

20 %5. (New) The method of claim %5, wherein said receptor is contacted with 100 or more different compounds separately.